defining a distal facing surface of the electrode body, wherein the distal facing surface includes an area configured to emit radio frequency (RF) energy.

16. (New) The catheter assembly of claim 15, wherein the RF energy emitting area occupies substantially all of the distal facing surface.

17. (New) The catheter assembly of claim 15, wherein the distal facing surface comprises multiple RF energy emitting areas.

18. (New) The catheter assembly of claim 17, wherein each of the RF energy emitting areas comprises a conductive substance disposed on the distal facing surface.

19. (New) The catheter assembly of claim 15, wherein the RF energy emitting area comprises a conductive substance disposed on the distal facing surface.

20. (New) The catheter assembly of claim 15, wherein the electrode body comprises a wall enclosing an interior region, the catheter comprises a lumen accessing the interior region, and the RF energy emitting area comprises a microporous section of the wall located in the distal facing surface.

21. (New) The catheter assembly of claim 15, wherein the electrode body comprises a wall enclosing an interior region, the assembly further comprising an interior support structure disposed in the interior region of the electrode body and adapted to urge the electrode body into an expanded geometry to thereby form the enlarged circumferential region.

22. (New) The catheter assembly of claim 15, wherein the pronounced ring further defines a proximal facing surface, and wherein substantially all of the distal facing surface and

the distal region is conductive, and wherein substantially all of the proximal facing surface is non-conductive.

23. (New) The catheter assembly of claim 15, wherein the elongate catheter includes a guide wire lumen and a distal guide wire section, the guide wire lumen disposed in the distal guide wire section.

24. (New) The catheter assembly of claim 15, wherein the expandable electrode body further comprises a wall and an interior region, and wherein the elongate catheter comprises an inflation lumen having a distal end and a proximal end, the distal end of the inflation lumen terminating in the interior region.

25. (New) The catheter assembly of claim 24, further comprising:

a handle having an inflation port, a proximal end of the elongate catheter mounted to the handle, the proximal end of the inflation lumen terminating in said inflation port; and

an RF generator electrically coupled to the RF energy emitting area of the electrode body.

26. (New) The catheter assembly of claim 25, further comprising:

a temperature sensing element disposed on the expandable electrode body; and

a controller electrically coupled to the temperature sensing element.

27. (New) A catheter assembly, comprising:

an elongate catheter;

an expandable electrode body mounted proximate one end of the catheter, the electrode body configured to form an enlarged circumferential region and a region distal to the

circumferential region when expanded, the circumferential region having a maximum circumference greater than a maximum circumference of the distal region, the circumferential region defining a distal facing surface of the electrode body, wherein the distal facing surface includes an area configured to emit radio frequency (RF) energy.

28. (New) The catheter assembly of claim 27, wherein the RF energy emitting area occupies substantially all of the distal facing surface.

29. (New) The catheter assembly of claim 27, wherein the distal facing surface comprises multiple RF energy emitting areas.

30. (New) The catheter assembly of claim 29, wherein each of the RF energy emitting areas comprises a conductive substance disposed on the distal facing surface.

31. (New) The catheter assembly of claim 27, wherein the RF energy emitting area comprises a conductive substance disposed on the distal facing surface.

32. (New) The catheter assembly of claim 27, wherein the electrode body comprises a wall enclosing an interior region, the catheter comprises a lumen accessing the interior region, and the RF energy emitting area comprises a microporous section of the wall located in the distal facing surface.

33. (New) The catheter assembly of claim 27, wherein the electrode body comprises a wall enclosing an interior region, the assembly further comprising an interior support structure disposed in the interior region of the electrode body and adapted to urge the electrode body into an expanded geometry to thereby form the enlarged circumferential region.

34. (New) The catheter assembly of claim 27, wherein the enlarged circumferential region further defines a proximal facing surface, and wherein substantially all of the distal facing surface and the distal region is conductive, and wherein substantially all of the proximal facing surface is non-conductive.

35. (New) The catheter assembly of claim 27, wherein the elongate catheter includes a guide wire lumen and a distal guide wire section, the guide wire lumen disposed in the distal guide wire section.

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36. (New) The catheter assembly of claim 27, wherein the expandable electrode body further comprises a wall and an interior region, and wherein the elongate catheter comprises an inflation lumen having a distal end and a proximal end, the distal end of the inflation lumen terminating in the interior region.

37. (New) The catheter assembly of claim 36, further comprising:

a handle having an inflation port, a proximal end of the elongate catheter mounted to the handle, the proximal end of the inflation lumen terminating in said inflation port; and

an RF generator electrically coupled to the RF energy emitting area of the electrode body.

38. (New) The catheter assembly of claim 27, further comprising:

a temperature sensing element disposed on the expandable electrode body; and

a controller electrically coupled to the temperature sensing element.

39. (New) The catheter assembly of claim 27, wherein the expandable electrode body is configured for ablating tissue outside of a vessel opening, and wherein the distal region and

distal facing surface of the enlarged circumferential region are respectively configured to simultaneously engage the tissue inside and the tissue outside of the vessel opening.

40. (New) The catheter assembly of claim 39, wherein the vessel opening is a pulmonary vein opening.

41. (New) The catheter assembly of claim 27, wherein the expandable electrode body is configured for ablating tissue inside and outside of a vessel opening, and wherein the distal region and distal facing surface of the enlarged circumferential region are respectively configured to simultaneously engage the tissue inside and the tissue outside of the vessel opening.

42. (New) The catheter assembly of claim 41, wherein the vessel opening is a pulmonary vein opening.

43. (New) A catheter assembly, comprising:

an elongate catheter;

an expandable electrode body mounted proximate one end of the catheter, the electrode body configured to form an pronounced ring and a region distal to the pronounced ring when expanded, the pronounced ring defining a distal facing surface of the electrode body, wherein the distal facing surface includes an area configured to emit radio frequency (RF) energy.

44. (New) The catheter assembly of claim 43, wherein the RF energy emitting area occupies substantially all of the distal facing surface.

45. (New) The catheter assembly of claim 43, wherein the distal facing surface comprises multiple RF energy emitting areas.

46. (New) The catheter assembly of claim 45, wherein each of the RF energy emitting areas comprises a conductive substance disposed on the distal facing surface.

47. (New) The catheter assembly of claim 43, wherein the RF energy emitting area comprises a conductive substance disposed on the distal facing surface.

48. (New) The catheter assembly of claim 43, wherein the electrode body comprises a wall enclosing an interior region, the catheter comprises a lumen accessing the interior region, and the RF energy emitting area comprises a microporous section of the wall located in the distal facing surface.

49. (New) The catheter assembly of claim 43, wherein the electrode body comprises a wall enclosing an interior region, the assembly further comprising an interior support structure disposed in the interior region of the electrode body and adapted to urge the electrode body into an expanded geometry to thereby form the pronounced ring.

50. (New) The catheter assembly of claim 43, wherein the pronounced ring further defines a proximal facing surface, and wherein substantially all of the distal facing surface and the distal region is conductive, and wherein substantially all of the proximal facing surface is non-conductive.

51. (New) The catheter assembly of claim 43, wherein the elongate catheter includes a guide wire lumen and a distal guide wire section, the guide wire lumen disposed in the distal guide wire section.

52. (New) The catheter assembly of claim 43, wherein the expandable electrode body further comprises a wall and an interior region, and wherein the elongate catheter comprises an

inflation lumen having a distal end and a proximal end, the distal end of the inflation lumen terminating in the interior region.

53. (New) The catheter assembly of claim 52, further comprising:

a handle having an inflation port, a proximal end of the elongate catheter mounted to the handle, the proximal end of the inflation lumen terminating in said inflation port; and

an RF generator electrically coupled to the RF energy emitting area of the electrode body.

54. (New) The catheter assembly of claim 43, further comprising:

a temperature sensing element disposed on the expandable electrode body; and

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a controller electrically coupled to the temperature sensing element.

55. (New) The catheter assembly of claim 43, wherein the expandable electrode body is configured for ablating tissue outside of a vessel opening, and wherein the distal region and distal facing surface of the pronounced ring are respectively configured to simultaneously engage the tissue inside and the tissue outside of the vessel opening.

56. (New) The catheter assembly of claim 55, wherein the vessel opening is a pulmonary vein opening.

57. (New) The catheter assembly of claim 43, wherein the expandable electrode body is configured for ablating tissue inside and outside of a vessel opening, and wherein the distal region and distal facing surface of the pronounced ring are respectively configured to simultaneously engage the tissue inside and the tissue outside of the vessel opening.

58. (New) The catheter assembly of claim 57, wherein the vessel opening is a pulmonary vein opening.